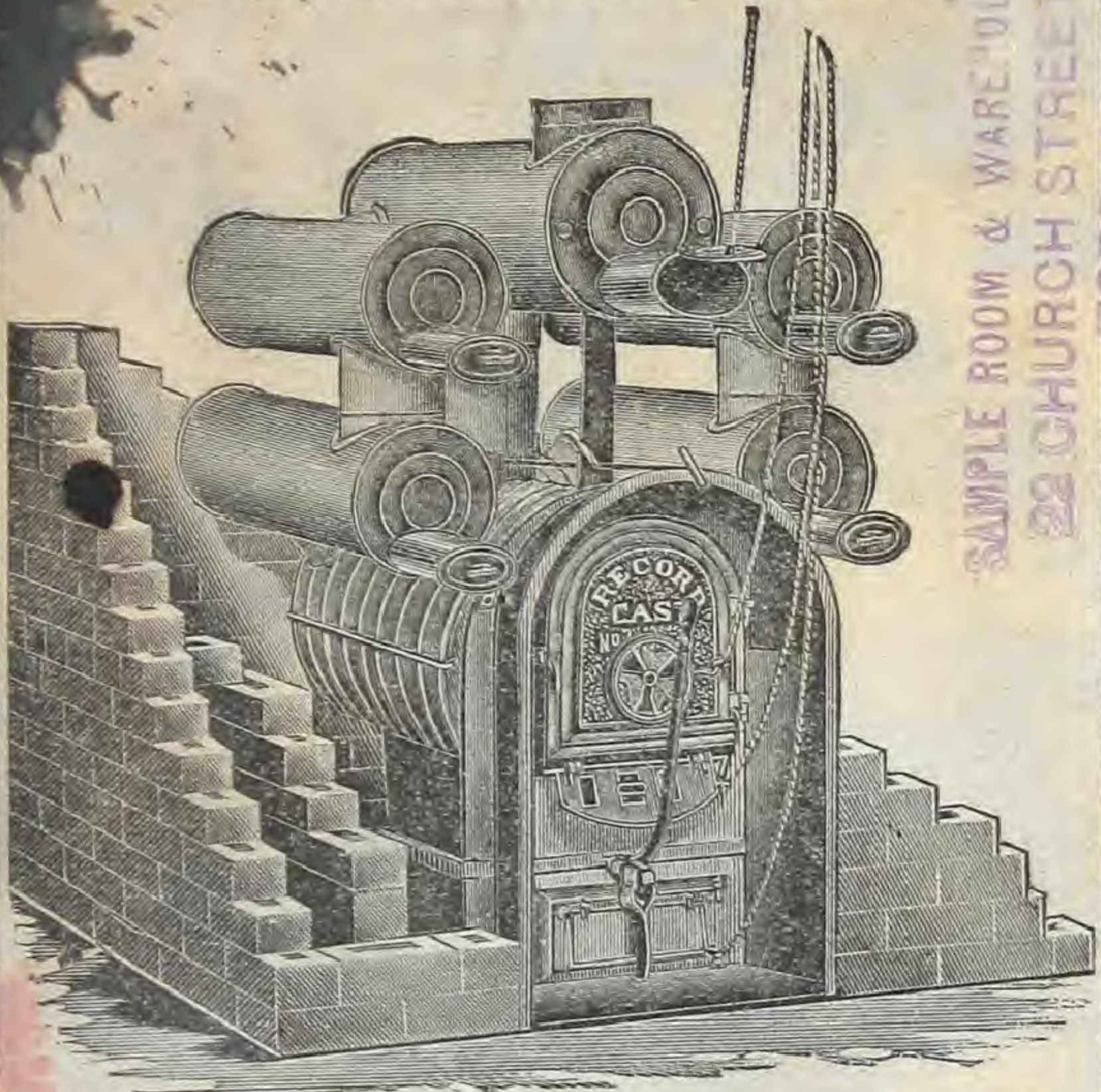


1094

RECORD HOT AIR FURNACES.

32 DIFFERENT STYLES AND SIZES.



SAMPLE ROOM & WAREHOUSE
22 CHURCH STREET,
TORONTO, ONT.

Illustrated Catalogue and Price List

OF
RECORD FURNACES, REGISTERS
AND FURNACE FITTINGS.

MANUFACTURED BY
RECORD FOUNDRY & MACHINE CO.,
MONCTON, - - N. B.

Branch
Warehouses:
MONTREAL, P. Q.
TORONTO, Ont.

ILLUSTRATED CATALOGUE

—AND—

PRICE LIST

—OF—

Record Hot Air Furnaces, Registers,

—AND—

FURNACE FITTINGS.

With Valuable Information on the FURNACE BUSINESS
which will repay a Careful Perusal.

RECORD STEEL FURNACES, for Wood only,
in 12 different sizes and styles.

RECORD CAST FURNACES, for Wood only,
in 8 different sizes and styles.

RECORD CAST COMBINATION, for Wood and
Coal, Hot Air and Hot Water, in 4 different sizes and
styles.

RECORD EQUATOR FURNACES, for Hard
or Soft Coal, in 6 different sizes.

—MANUFACTURED BY—

RECORD FOUNDRY AND MACHINE COMPANY,

Moncton, N. B.

. . . WAREHOUSES . . .

MONTREAL, P. Q.

TORONTO, Ont.



THE LATE C. B. RECORD,
(Founder of the Record F. & M. Co.)



THE engraving on the preceding page will be recognized by old customers and friends as an excellent portrait of the late C. B. RECORD, who founded the Record F. & M. Co. over 50 years ago.



HOW TO OBTAIN ESTIMATES FOR HEATING.

When you have decided to buy a furnace, if your local dealer does not handle the Record line, either insist on his furnishing you one or write us direct, giving a sketch of the buildings, similar to one shown on eighth page, with answers to the following questions:

What kind of building : wood, brick or stone ?

Does building stand alone, or in a block ?

Size of building ?

How many stories to be heated ?

Height of each story, 1st, 2nd, 3rd ?

Give height of cellar or basement ?

Ventilation (system, if any) ?

Designate rooms to be heated ?

Designate size of rooms and halls ?

Designate location and size of all chimneys and flues ?

Designate points of compass ?

State thickness of brick or stud partitions, if concealed pipes are to be used to carry the heat to upper rooms ?

State kind of furnace preferred ?

State fuel to be used — hard or soft coal, or wood ?

FOR A CHURCH, PUBLIC BUILDING, OR SCHOOL.

What kind of building—wood, brick, or stone?

Size, height of ceiling?

Give style of roof and location of tower or spire?

The side walls—are they plastered on brick, or on furring?

Kind of ceiling—plastered, finished in wood, or covered with felt?

Give height of cellar or basement?

Ventilation—(system, if any)?

Designate entrance—with lobby, if any?

Designate aisles, width of same, and seatings?

Designate location of chimney flues and inside size of same?

Designate rooms and size, (if any,) to be heated?

Designate windows in basement and main auditorium?

Designate location of carrying beams, girders, posts or piers in cellar or basement?

Designate points of compass?

If basement is to be heated, designate size, height, finish and seatings?

State kind of Furnace preferred.

State fuel to be used—hard or soft coal, or wood?

Upon receipt of this memorandum, we will mail estimate for heating, combining size of registers, location of same, ventilating flues, etc., with suggestions as to setting, etc.

Do not make the too prevailing mistake of selecting an undersized furnace. Always insist from your dealer a **LARGE ENOUGH FURNACE**. The frequent extremes of our winter weather call upon a reserve power in a heater, which cannot be supplied from a furnace just large enough to heat in ordinary weather; besides it is more economical in fuel consumed to heat the larger one.

DIRECTIONS FOR SETTING THE RECORD WOOD FURNACE IN BRICK.

1. Make a level foundation sufficiently large for the Furnace.
2. Place Furnace upon foundation of brick or stone and see that it stands perfectly solid.
3. Place damper in centre collar on fire box and bolt short length of pipe to collar.
4. Put on two lower side drums and support front ends temporary, so that all the weight does not come on the collars.
5. Put on two upper side drums.
6. Now put on top drum and carefully connect all collars.
7. Place the binding rod around the back end of the three upper drums and tighten up slightly with nut until drums are in proper place.

IMPORTANT,—As you put drums together see that every connection is properly cemented.

8. Now commence the brick work, as shown in cuts, building the inside wall four inches off sides and back end of Furnace, not forgetting to leave openings for cold air at the base, as shown, or every other brick left out around the sides and back end, leaving spaces 8 x 4 inches and 11 x 4 inches alternately. The inside wall should run up beyond the centre of Furnace and then join to the outside wall at each side as shown in cut. The inside wall at back end joins on to the outside walls at the junction of the inside walls and continues to the top. The air space between side walls should be four inches for a small Furnace and six inches for a large one, at back end eight inches for a small Furnace and ten inches for a large one. The cold air space leads down between the back walls; the capacity of which should be equal to the area of hot air pipes.

9. Put water pan in side wall or front, wherever most convenient for filling.

10. The front wall is built solid, four inches thick, and should be flush with flange on fire box.

11. Put cleaner pipes in position as soon as wall is high enough to receive them; care should be taken that they are placed level and thoroughly cemented.

12. The walls should be built high enough, so that the roof will be at least four inches off top drum.

13. We advise taking hot air pipes out of top of furnace, but when basement is not high enough to admit of them being taken off

top, then place them in side of walls, as near the top as possible, so as not to allow any dead air space.

14. Place covering bars, which go with each Furnace, on top of walls to support the roof. Lay sheet iron on covering bars and build brick wall around edge covering outer Furnace top, with sand three inches deep.

15. When a Furnace is supplied with more than one cold air duct, it is advisable that openings be left on both sides of Furnace for same.

16. We recommend that cold air boxes be made of galvanized iron, or tin plate, in preference to wood, but wood covered with paper well pasted, to cover cracks, will answer.

FORM OF SALES MEMO. USED BY OUR AGENTS.

RECORD FOUNDRY AND MACHINE COMPANY,

MONCTON, N. B.

Warehouses:

MONTREAL, P. Q.

TORONTO, ONT.

COPY OF ORDER GIVEN TO.....

BY..... ADDRESS.....

DATE.....189

Style and Size of Furnace, Brick-set or Cased. No.....

Hot Air Registers, Nickeled or Japanned.	x	Register and border.....	For Hall.
	x	" " " " " "	" Parlor.
	x	" " " " " "	" Dining Room.
	x	" " " " " "	" " " " " "
	x	" " " " " "	" " " " " "
Cold Air Faces and Ducts.	x	" " " " " "	" Hall.
	x	" " " " " "	" " " " " "

Cold Air Ducts to be made of..... and put in by.....

Hot Air Piping. All necessary Hot Air Piping, Elbows and Register Boxes to be made of.....and put up in a workmanlike manner.

Smoke Pipe. Smoke pipe to run..... and supplied by.....

Brick Work. Necessary Brick, Lime and Sand to be supplied by..... who also does all necessary mason work.

Carpenter Work. Holes for Registers and Cold Air Faces, as well as all necessary carpenter work, to be done by.....

Freight. Freight on Furnaces and Registers from.....to be paid by.....

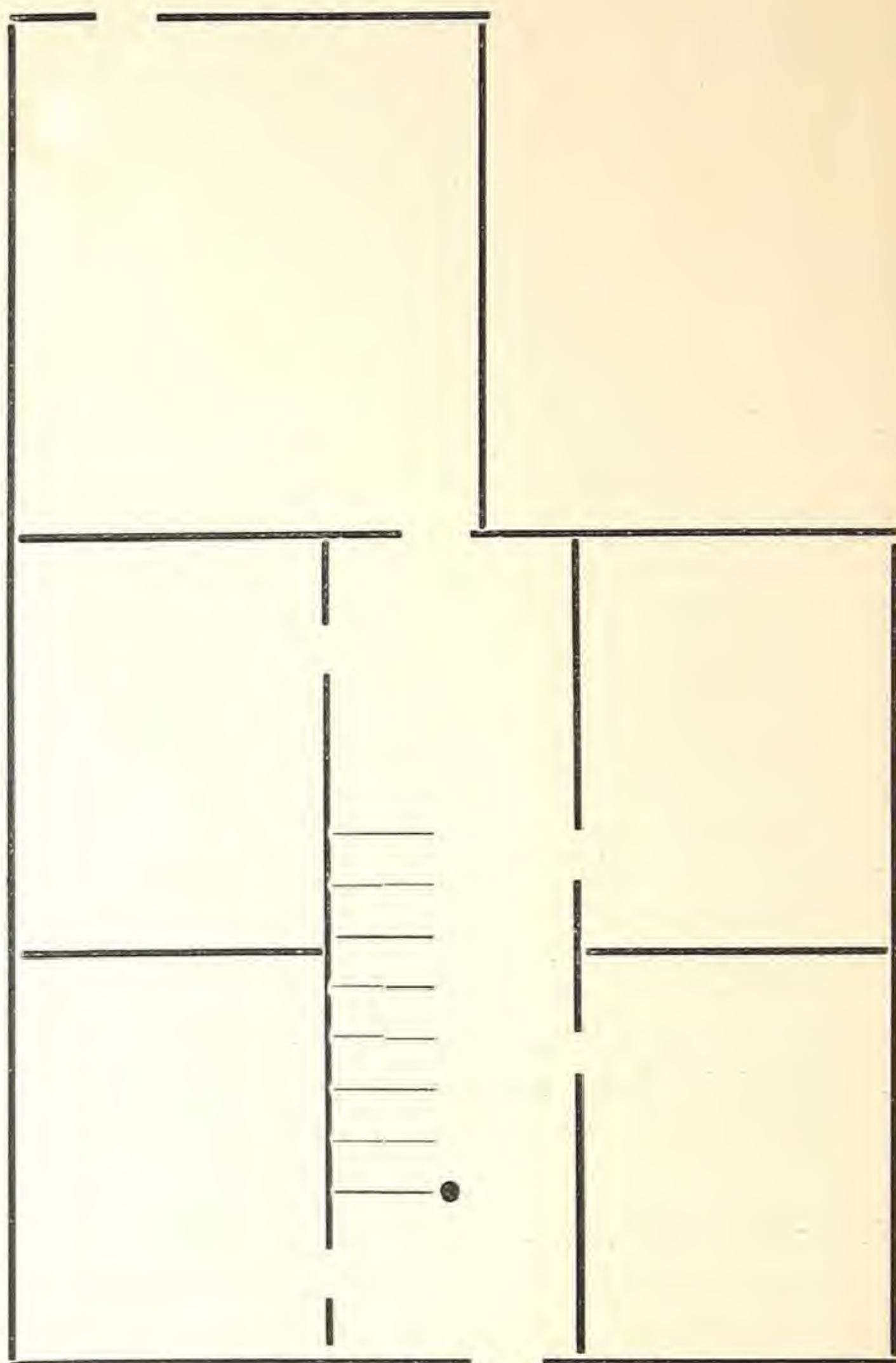
When to Ship. Furnaces and Registers to be supplied and all work to be done on or about.....

Prices and Terms. Price, \$..... Payable.....

..... fully guarantee this furnace to work properly in every respect, and to comfortably heat all rooms in which Registers are placed, the purchaser to provide good and sufficient draft, as well as give furnace proper attention.

ACCEPTED BY

SIGNED, {



PLAN OF HOUSE.

REFERENCE TO PLAN.

The plan on foregoing page is given as a suggestion that can be imitated with advantage, as it is readily appreciated how difficult it is for even an expert to derive a correct idea of a house from a written explanation and description, however elaborate it may be, when not accompanied by the roughest or crudest kind of a plan.

If it is an old house state the size of the smoke flues, and which of them can be used, also state which of the rooms are to be heated. If there is any deep girder in the cellar mark its location on plan, and state height from cellar floor to bottom of girder. If rocks or water in the bottom of cellar prevents digging down to give elevation to hot air pipes, state it in the description. If it is to be a new house, and yet to be built, too much importance cannot be given to the proper arrangement for a suitable place for the Furnace, as well as the hot air pipes, especially those in partitions, for on these depend the health and comfort for six months of the year, for no Furnace can give good results when not put up properly, therefore see when building is designed and plans drawn that provision is made, so that Furnace and piping can be properly located, for on this, also, depends the size of the coal bill and the durability of the Furnace.

How to heat a house should be thoroughly considered before it is built.

HOW TO SET A HOT AIR FURNACE TO GET THE BEST RESULTS.

The proper location of a Furnace, as well as the sizes and distribution of the warm air conducting pipes, from the Furnace, is one of the most important requisites for its successful operation.

The Furnace should always be so placed as to have the warm air pipes as near of a length as possible, but when more exposure exists from the prevailing winds, generally North or North West, making one side of the house more exposed than the other, that side should be favored by placing the Furnace nearer it than the warmer side, and by increasing the size of the warm air pipes.

If the draft of the chimney is defective correct it by increasing its size or height, or by stopping all leaks and openings into it; if of the larger fireplace character stop it off where it contracts above the fireplace, and run the smoke pipe up to or above this point. Make the smoke pipe the full size, as no Furnace can work properly without a good draft in the chimney.

Some paltry convenience in the cellar should not be allowed to interfere with the proper location of the Furnace, on which its success and economy largely depends.

If two Furnaces are to be used observe the same rule, and if of different size set the larger one where the most work is to be done, or on the cold side of the building. The north west atmospheric pressure of winter will be overcome by the short pipes, and the natural opposite flow reduced by the longer, securing an equal flow of hot air from all of the pipes.

The rapidity of the current in either direction is readily increased with the pitch of the pipes.

If there will not be a good rise of the hot air pipes, dig out the cellar by all means, if possible, and lower the Furnace, as a lack of sufficient pitch to the hot air pipes may cause a loss of heat, from sluggish flow, that can only be counteracted by an extra quantity of fuel each season.

A hot air pipe should never be taken directly from the front of the Furnace, unless to a small upper room or hall, as the ash-pit and coal chute prevent a natural rise of air at this point.

The back of the Furnace, if possible, should always be toward where most of the pipes run.

Each pipe leading to second flat should be provided with a damper, directly where it connects with the Furnace, to control the distribution of heat. Hot air pipes should be invariably round, made of good tin, avoiding angles, all bends being made with curves or round elbows, as air follows a circular surface with infinitely less friction, and much more freely and rapidly, than the abrupt turns frequently made.

Piping of ample size, and free circulation of air are necessary for success, as it is impossible to properly heat a large space with a small pipe which supplies a limited quantity of excessively heated air, instead of an abundance of wholesome and pleasantly warmed air, which establishes healthy ventilation. It requires much more hot air to warm the first floor than the stories above, and larger pipes should be used for downstairs rooms. For instance if a ten inch pipe is used for a given sized northwest room, an eight inch pipe would be ample for the same sized room above, or a nine inch pipe for a southeast room downstairs.

When the rooms and halls on the first floor are thoroughly heated little difficulty will be experienced in heating the rooms above.

RECORD STEEL FURNACES,

For Wood Only.

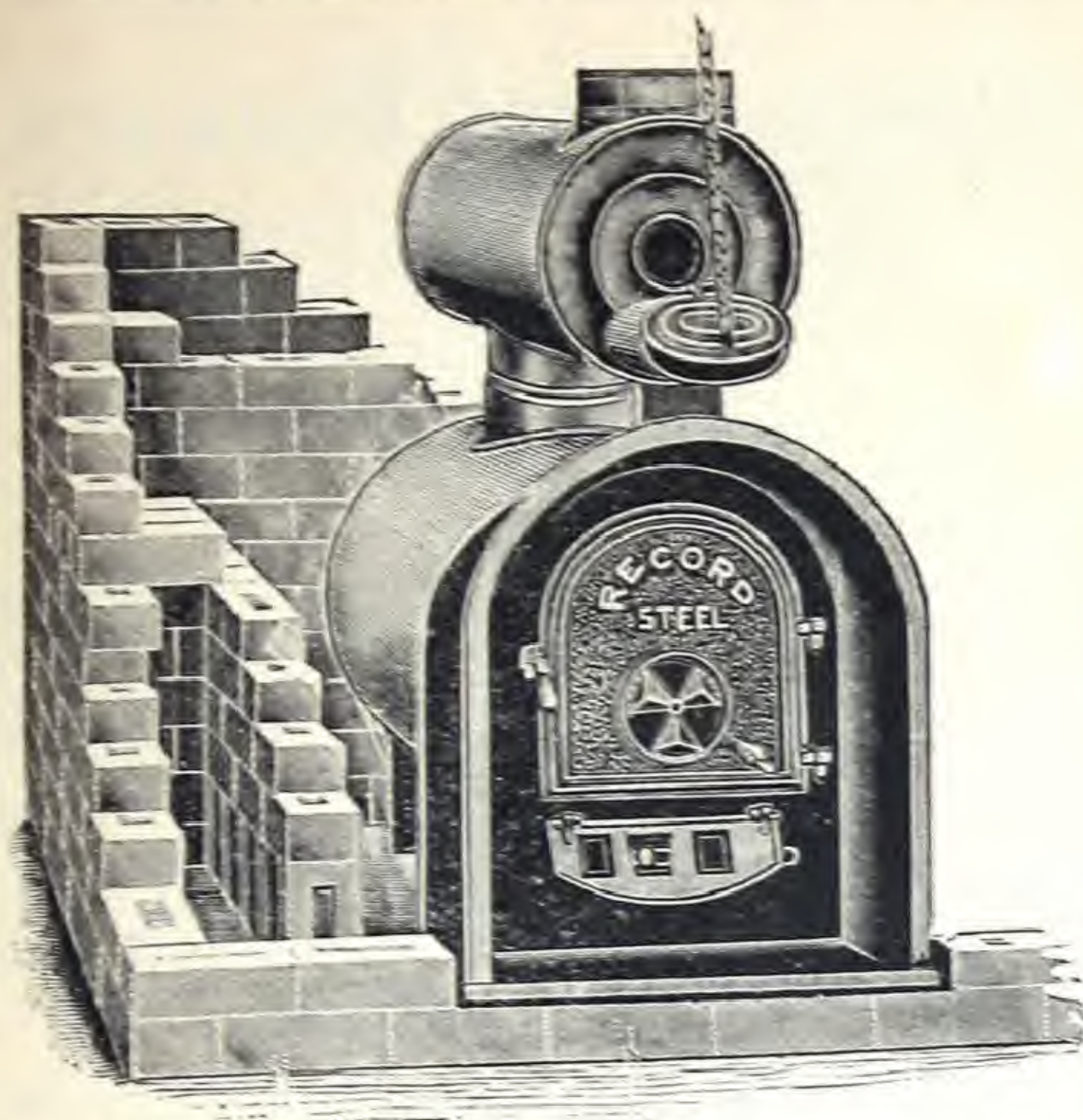
Made in 12 Different Sizes and Styles.

LATEST IMPROVED.

The body is made of heavy boiler plate steel, and while not "indestructible," (as claimed for some furnaces), they have stood the test of 15 to 20 years' burning, and are all right yet. When properly set it makes the most durable furnace, but cannot recommend steel for burning salt wood.

No. 1. Takes wood 3 feet long, is 37 inches high, requires 750 brick to set it, body is 24 inches diameter inside. Has heating capacity of 25,000 cubic feet.

No. 6. Takes wood 4 feet long, is 37 inches high, requires 900 brick to set it, body is 24 inches diameter inside. Has heating capacity of 45,000 cubic feet.



RECORD STEEL FURNACE.

FOR WOOD ONLY.

Styles of Nos. 1 and 6.

PRICE :

No. 1 Steel, 3 feet, 1 Radiator,	-	-	\$50.40
No. 6 " 4 " 1 "	-	-	63.00

We give with this furnace 2 Bars for holding up top, Poker, Ash Shovel, Scraper, Ash Grate, Water Pan, Chain Rings and Knobs.

Discount

RECORD STEEL FURNACE.

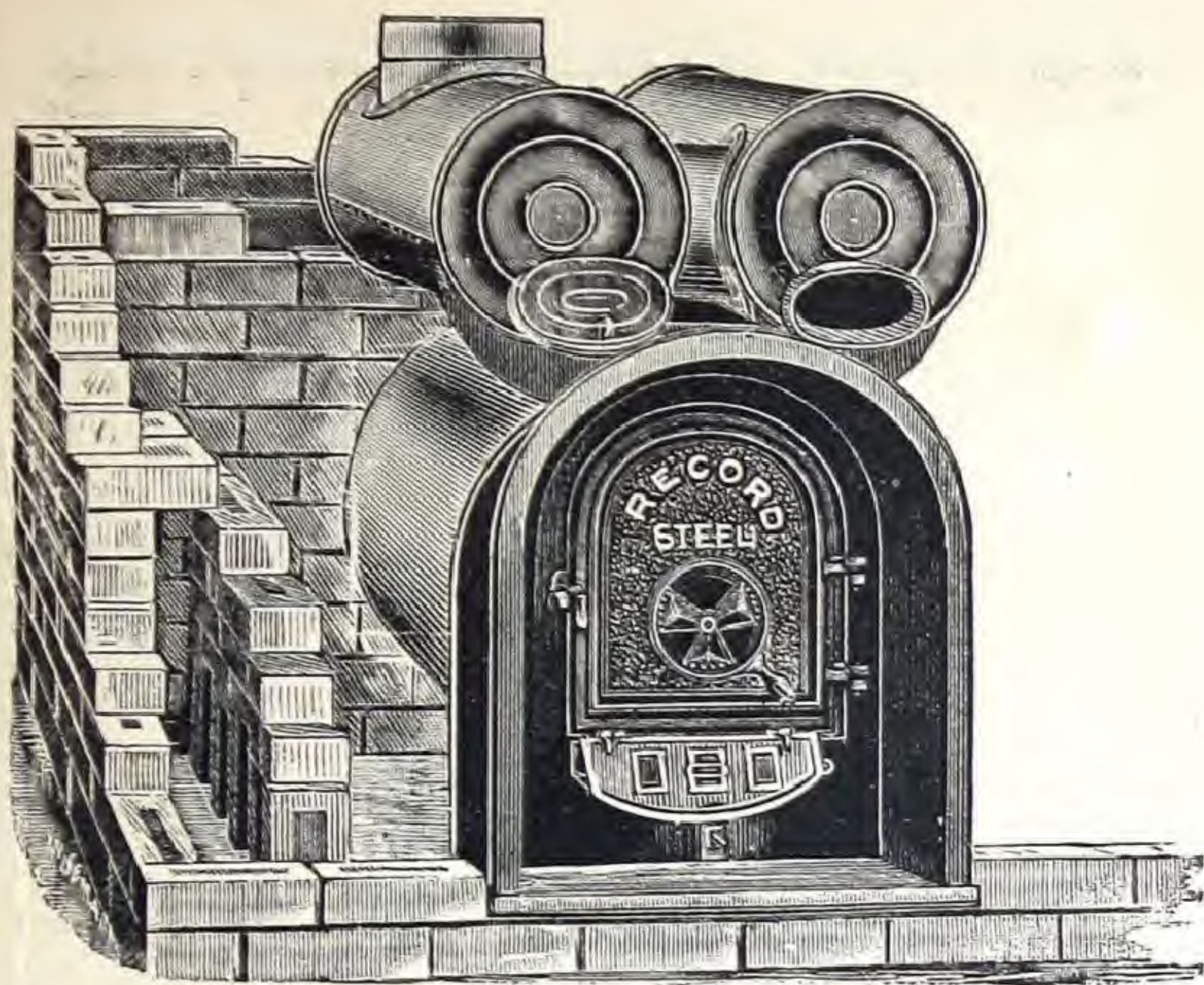
FOR WOOD ONLY.

No. 3. Takes wood 3 feet long, is 37 inches high, requires 750 brick to set it, body is 24 inches diameter inside. Has a heating capacity of 30,000 cubic feet.

No. 7. Takes wood 4 feet long, is 37 inches high, requires 900 brick to set it, body is 24 inches diameter inside. Has a heating capacity of 45,000 cubic feet.

No. 10. Takes wood 4 feet long, is 46 inches high, requires 1,200 brick to set it, body is 30 inches diameter inside. Has a heating capacity of 150,000 cubic feet.

No. 11. Takes wood 4 feet long, is 46 inches high, requires 1,200 brick to set it, body is 30 inches diameter inside. Has a heating capacity of 150,000 cubic feet.



RECORD STEEL FURNACE.

FOR WOOD ONLY.

Styles of Nos. 3, 7, 10 and 11.

PRICE :

No. 3	Steel, 3 feet,	2 Radiators,	-	-	\$ 59 35
" 7	" 4	" 2	"	-	69 85
" 10	" 4	" 2	"	-	115 50
" 11	" 4	" 2	"	-	94 50

We give with this furnace 2 Bars for holding up top, Poker, Ash Shovel, Scraper, Ash Grate, Water Pan, Chain Rings and Knobs.

Discount

RECORD STEEL FURNACE.

FOR WOOD ONLY.

Has ash cleaning door and dampers to regulate the draft, which are operated from rooms above.

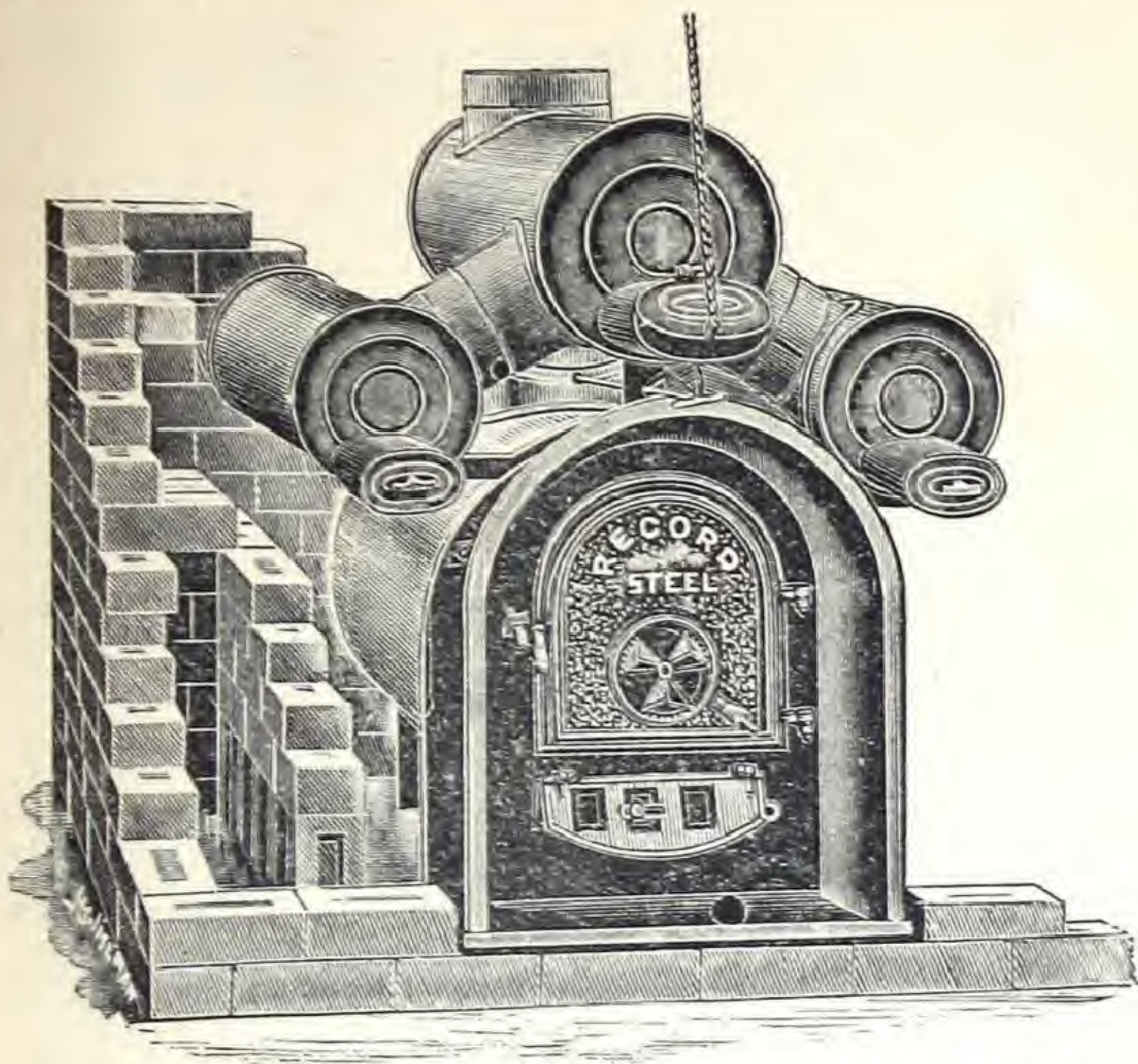
It is fitted with a grate to separate the ashes from coals, which prevents an accumulation of ashes and preserves the full heating capacity of the furnace.

The facilities for cleaning out the radiators are unexcelled, having large clean-out and check draft door on the end of each radiator. The gas and dust proof qualities are not excelled by any style of furnace, and the liability to cracking does not exist.

No. 4. Takes wood 3 feet long, is 40 inches high, requires 750 brick to set it, body is 24 inches diameter inside. Has a heating capacity of 35,000 cubic feet.

No. 8. Takes wood 4 feet long, is 40 inches high, requires 900 brick to set it, body is 24 inches diameter inside. Has a heating capacity of 50,000 cubic feet.

No. 12. Takes wood 4 feet long, is 50 inches high, requires 1,200 brick to set it, body is 30 inches diameter inside. Has a heating capacity of 175,000 cubic feet.



RECORD STEEL FURNACE.

FOR WOOD ONLY.

Styles of Nos. 4, 8 and 12.

PRICE :

No.	4	Steel,	3	feet,	3	Radiators,	-	-	\$63	00
"	8	"	4	"	3	"	-	-	73	50
"	12	"	4	"	3	"	-	-	99	75

We give with this furnace 2 Bars for holding up top, Poker, Ash Shovel, Scraper, Ash Grate, Water Pan, Chain Rings and Knobs.

Discount,

RECORD STEEL FURNACE.

FOR WOOD ONLY.

The heat radiating surface is much larger than that of many other styles.

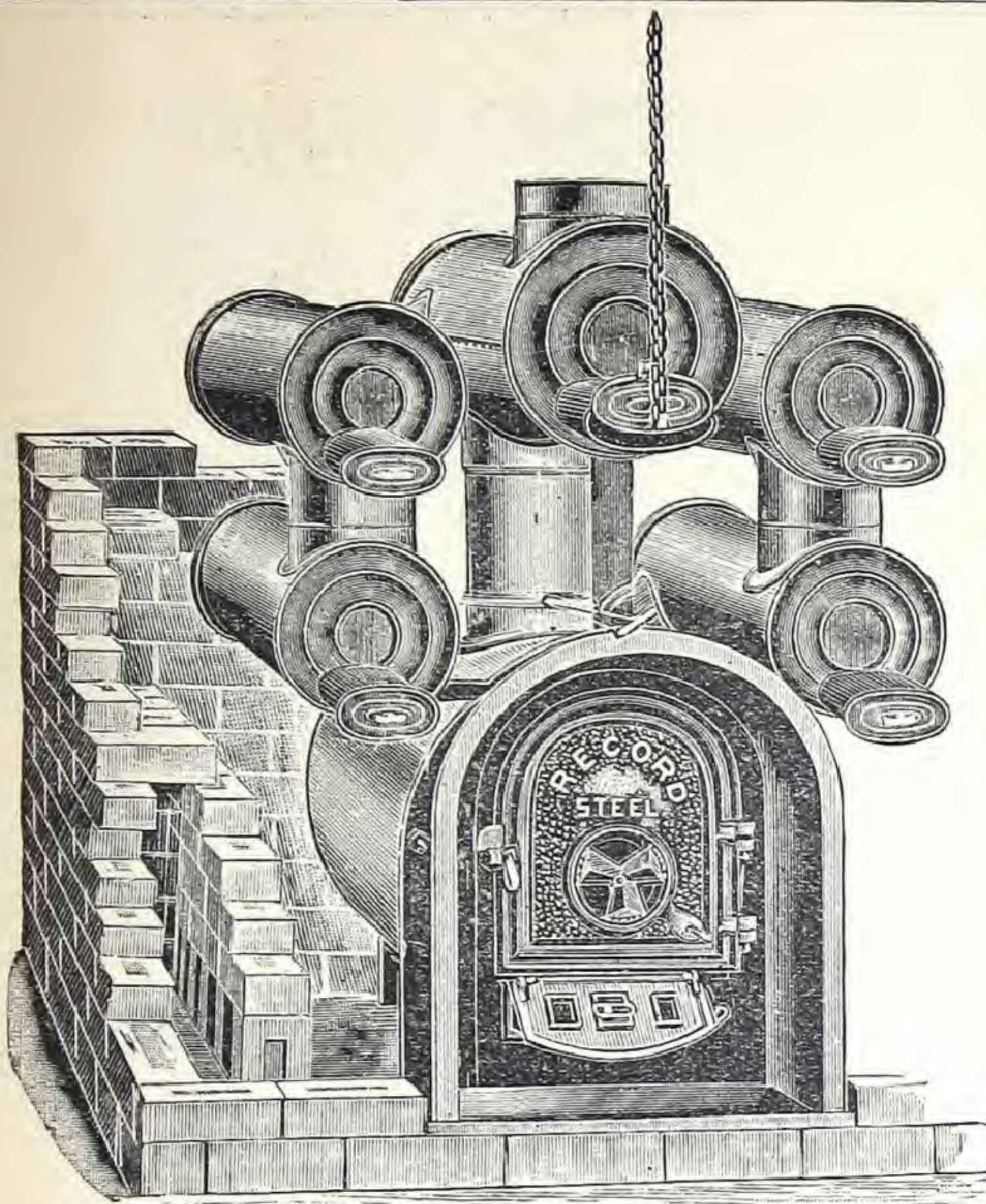
Durability and economy are two great features it possesses.

In short, we guarantee every furnace to give satisfaction wherever used. It is no new, untested article; they have been in constant use for over 20 years, and are still giving good satisfaction. Wherever properly set up it has never failed to please.

No. 5. Takes wood 3 feet long, is 47 inches high, requires 850 brick to set it, body is 24 inches diameter inside. Has a heating capacity of 45,000 cubic feet.

No. 9. Takes wood 4 feet long, is 47 inches high, requires 1,000 brick to set it, body is 24 inches diameter inside. Has a heating capacity of 70,000 cubic feet.

No. 13. Takes wood 4 feet long, is 56 inches high, requires 1,300 brick to set it, body is 30 inches diameter inside. Has a heating capacity of 200,000 cubic feet.



RECORD STEEL FURNACE.

FOR WOOD ONLY.

Style of Nos. 5, 9 and 13.

PRICE :

No. 5 Steel, 3 feet, 5 Radiators,	-	-	\$ 73 50
" 9 " 4 " 5 "	-	-	84 00
" 13 " 4 " 5 "	-	-	115 50

We give with this furnace 2 Bars for holding up top, Poker, Ash Shovel, Scraper, Ash Grate, Water Pan, Chain Rings and Knobs.

Discount,.....

RECORD CAST FURNACES.

For Wood Only.

Made in 8 Different Sizes and Styles.

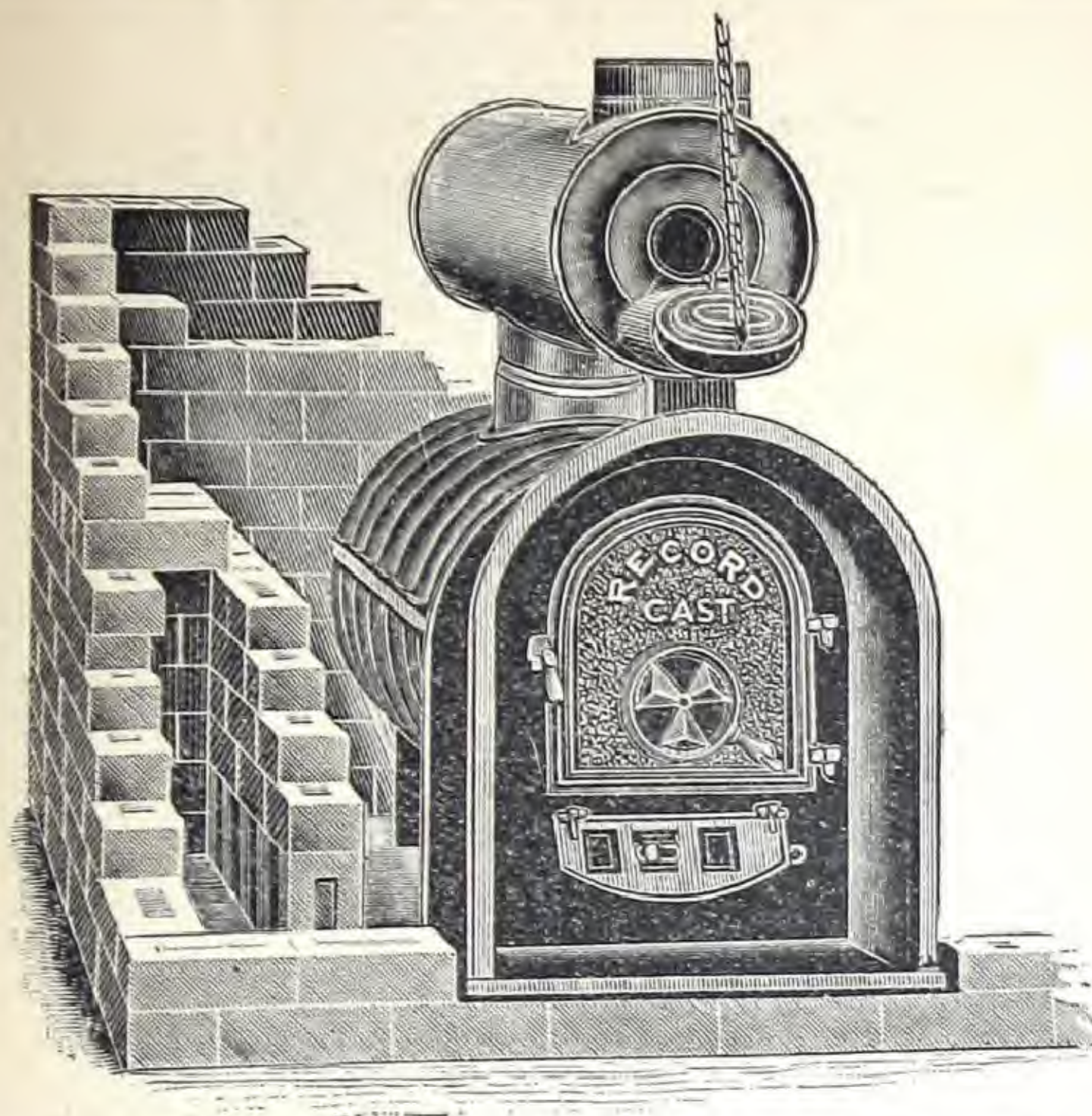
JUST OUT. - - LATEST AND MOST IMPROVED.
NEW PATTERNS.

Has heavy corrugated body, improved front with drafts and doors that can be operated from the rooms in the house. No need to go down in the cellar to give the furnace more draft or to stop the draft. Fitted with heavy steel radiators, easy to clean out. Large feed door for burning rough wood.

Always buy a furnace a size larger than you require, and then you will be sure to get satisfaction.

No. 14. Takes wood 3 feet long is 37 inches high, requires 750 brick to set it, body is 24 inches diameter inside. Has a heating capacity of 25,000 cubic feet.

No. 18. Takes wood 4 feet long, is 37 inches high, requires 900 bricks to set it, body is 24 inches diameter inside. Has a heating capacity of 35,000 cubic feet.



RECORD CAST FURNACE.

FOR WOOD ONLY.

Style of Nos. 14 and 18.

PRICE :

No. 14 Cast, 3 feet, 1 Radiator,	-	-	\$38 85
" 18 " 4 " 1 "	-	-	49 35

We give with this furnace 2 Bars for holding up top, Poker, Ash Shovel, Scraper, Ash Grate, Water Pan, Chain Rings and Knobs.

Discount,

RECORD CAST FURNACE.

FOR WOOD ONLY.

Has a heavy cast corrugated body, with one joint, which is a cup joint and renders the body smoke and dust proof.

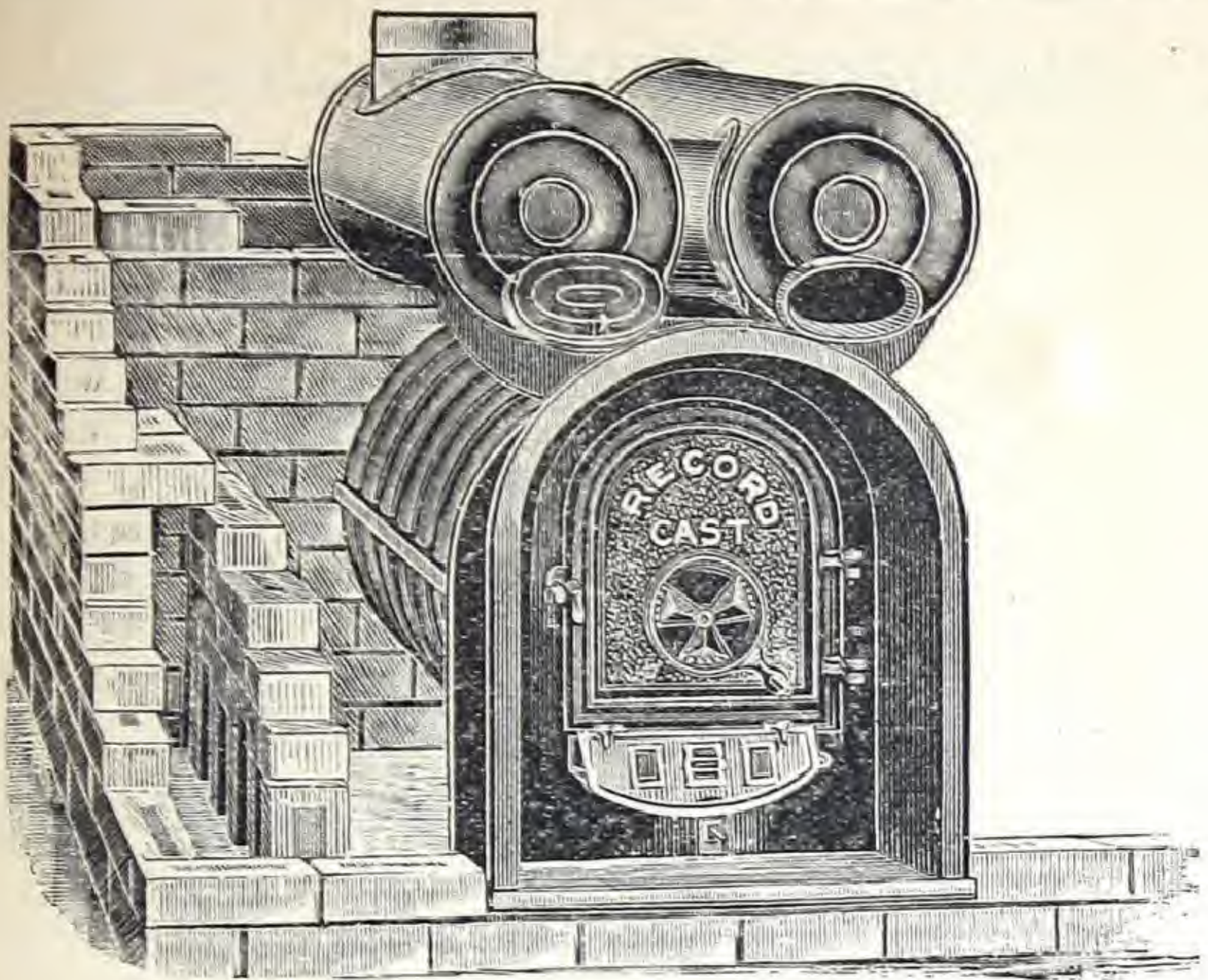
The fire door is large, and will admit large, rough wood.

The drum is constructed of heavy steel plate with heavy cast iron ends and collars, and is arranged with a double return flue.

The drafts are arranged to be regulated from rooms above.

No. 15. Takes wood 3 feet long, is 37 inches high, requires 750 brick to set it, body is 24 inches diameter inside. Has a heating capacity of 30,000 cubic feet.

No. 19. Takes wood 4 feet long, is 37 inches high, requires 900 brick to set it, body is 24 inches diameter inside. Has a heating capacity of 45,000 cubic feet.



RECORD CAST FURNACE.

FOR WOOD ONLY.

Style of Nos. 15 and 19.

PRICE :

No. 15 Cast, 3 feet, 2 Radiators,	-	-	\$45 67
" 19 " 4 " 2 "	-	-	56 17

We give with this furnace 2 Bars for holding up top, Poker, Ash Shovel, Scraper, Ash Grate, Water Pan, Chain Rings and Knobs.

Discount,

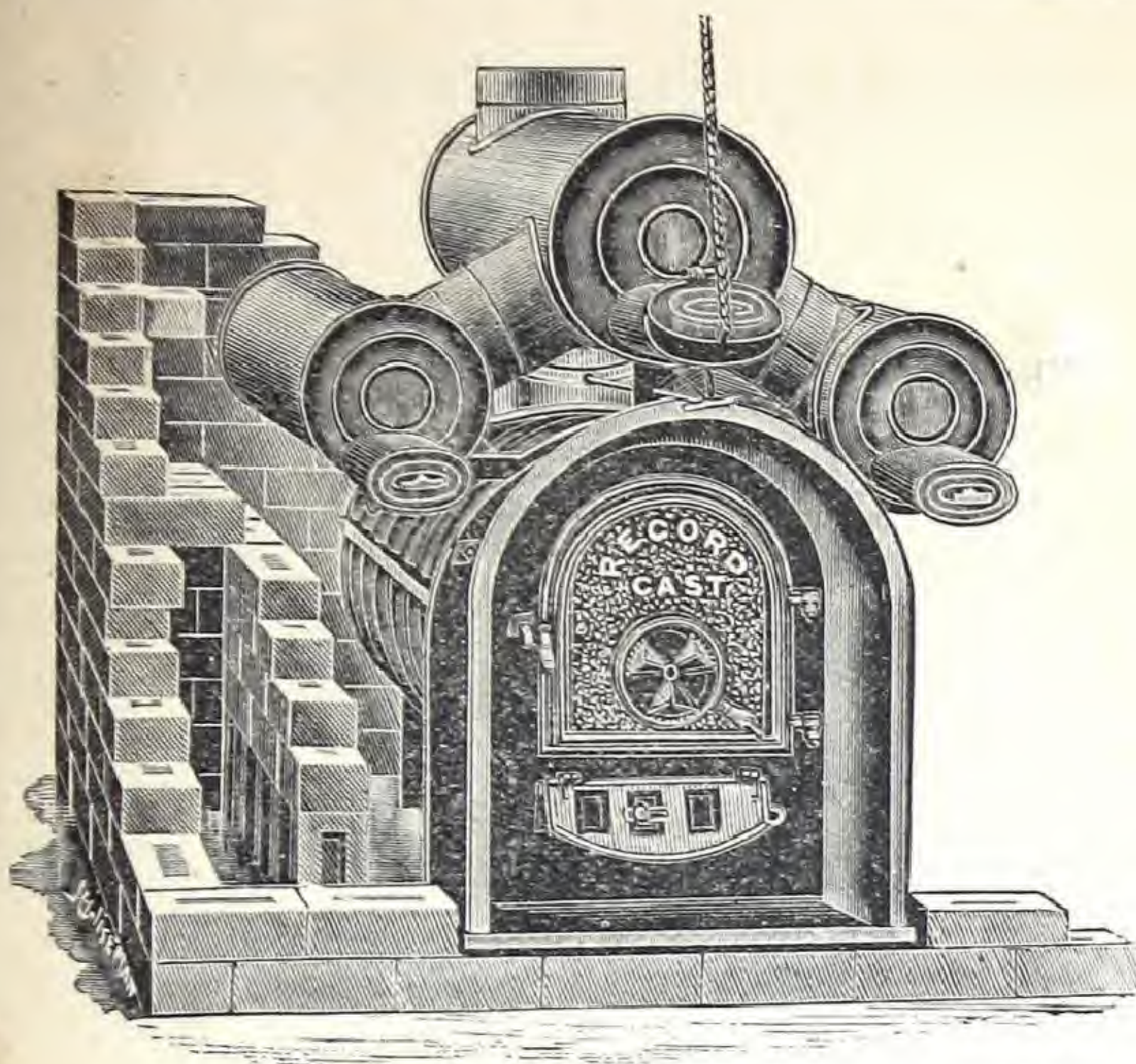
RECORD CAST FURNACE.

FOR WOOD ONLY.

When you have decided to purchase a furnace, send us a diagram showing the arrangement of rooms upon each floor, marking those to be warmed, and giving dimensions of each room, position of doors and windows, relative position of cellar under the part of the house to be heated, location of chimneys and any information regarding the points of compass, and amount of exposure. On receipt of same we will make an estimate of the expense of placing the furnace in building, or, if we consider it necessary, we will send a competent man to view the building and surroundings, who will make prices and give other necessary information regarding the heating. When the work is done or superintended by us we will assume all responsibility, and if the furnace does not do all we claim for it, we will, when notified, remedy the difficulty.

No. 16. Takes wood 3 feet long, is 40 inches high, requires 750 brick to set it, body is 24 inches diameter inside. Has a heating capacity of 35,000 cubic feet.

No. 20. Takes wood 4 feet long, is 40 inches high, requires 900 brick to set it, body is 24 inches diameter inside. Has a heating capacity of 50,000 cubic feet.



RECORD CAST FURNACE.

FOR WOOD ONLY.

Style of Nos. 16 and 20.

PRICE :

No. 16 Cast, 3 feet, 3 Radiators,	-	-	\$49 35
" 20 " 4 " 3 "	-	-	59 85

We give with this furnace 2 Bars for holding up top, Poker, Ash Shovel, Scraper, Ash Grate, Water Pan, Chain Rings and Knobs.

Discount,

RECORD COMBINATION FURNACES.

For Wood and Coal.

Furnished with Hot Water Sides when Required.
Made in 4 Different Sizes and Styles.

JUST OUT. - - - LATEST AND MOST IMPROVED.
NEW PATTERNS.

Has heavy corrugated body, improved front with drafts and doors that can be operated from the rooms in the house. No need to go down in the cellar to give the furnace more draft or to stop the draft. Fitted with heavy steel radiators, easy to clean out. Large feed door for burning rough wood.

All sizes of this furnace can be furnished with water sides for hot water heating with pipes or radiators.

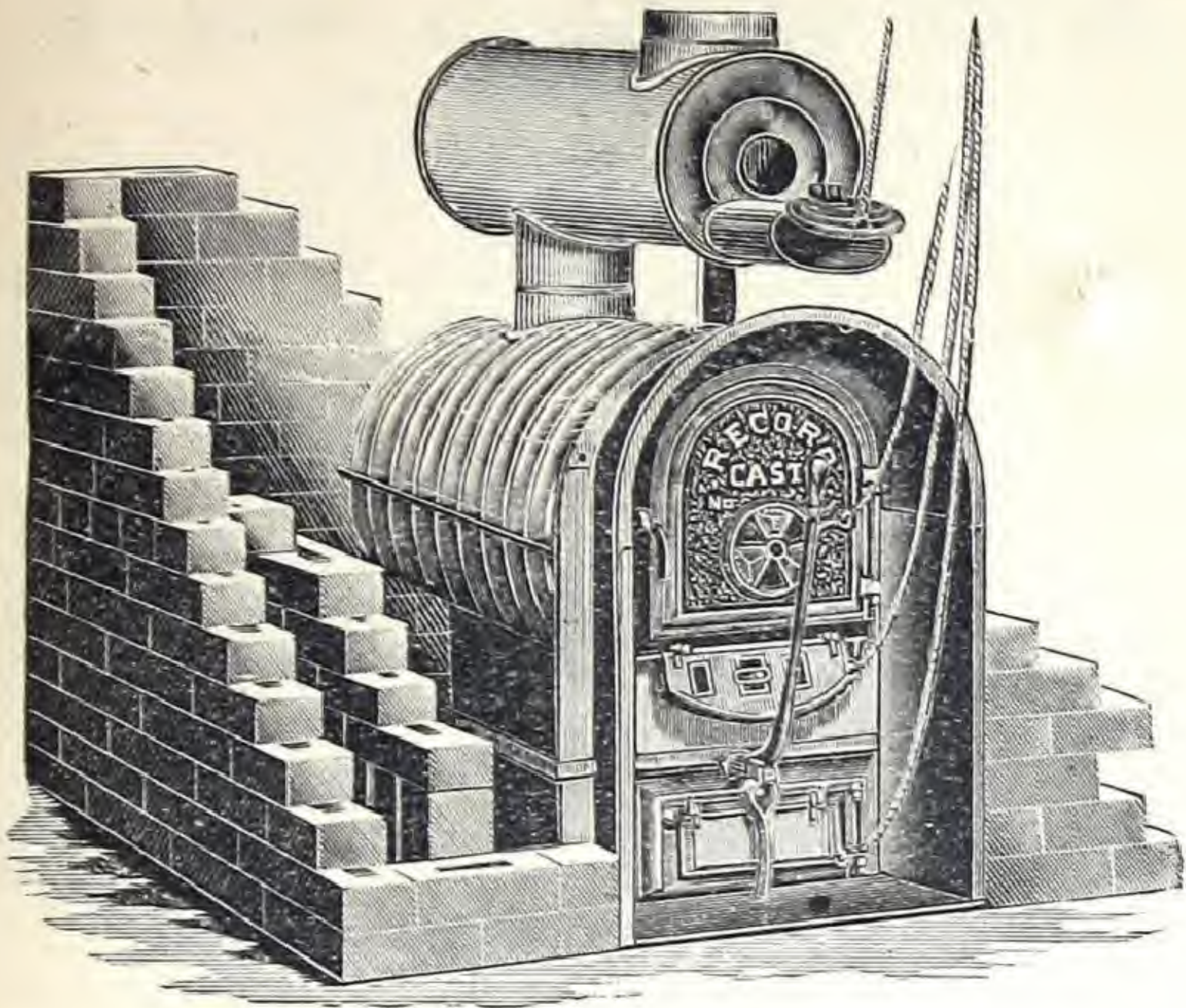
This combination system when introduced with hot air reduces the cost of fuel materially, and is a very convenient form of heating rooms where hot air is not practicable.

The heat radiating surface is much larger than that of many other styles.

Durability and economy are two great features it possesses.

Wherever properly set up it has never failed to please.

No. 22. Takes wood 3 feet long, has coal pit 8 inches deep, 14 inches wide and 20 inches long; is lined with fire brick linings, has convenient grate shaker, is 37 inches high, requires 750 brick to set it, body is 24 inches diameter inside. Has a heating capacity of 25,000 cubic feet.



Record Combination Furnace.

FOR WOOD AND COAL.

Style of No. 22.

PRICE :

No. 22 Cast Combination, 3 feet, 1 Radiator,	\$50 95
Hot Water Sides, each - - - -	5 25

We give with this furnace 2 Bars for holding up top, Poker, Ash Shovel, Scraper, Shaker, Water Pan, Chain Rings and Knobs.

Discount,

Record Combination Furnace.

FOR WOOD AND COAL.

Furnished with Hot Water Sides when required.

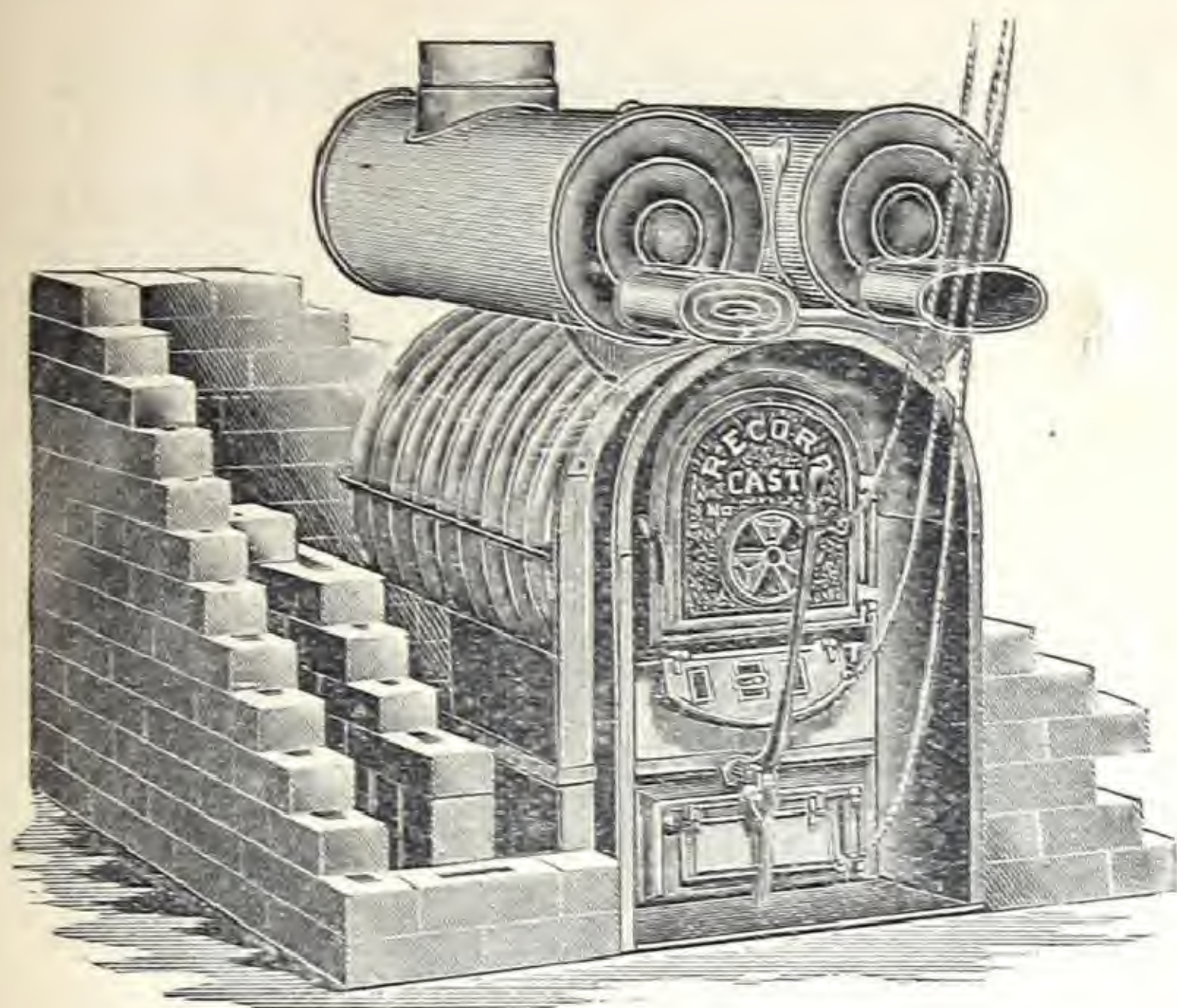
The Record line of furnaces can be easily cleaned out at all times. This very necessary arrangement is too often overlooked, and as a result, parties who have purchased other furnaces are forced to have them taken apart in order to clean them, causing much annoyance and inconvenience.

The Record line will save first cost in a few years, as the roughest kind of wood can be burned (owing to size of feed door.)

Farmers who have a surplus of wood unfit for the market, will find them a great relief from the vexation and annoyance of pulling down and setting up ordinary heating stoves and pipes, wood-boxes, etc.

We fully realize the importance of the "Fuel Bill," and do not hesitate in saying that as yet there has been no means devised whereby more heat can be generated from a given amount of fuel than with our improved furnace.

No. 23. Takes wood 3 feet long, has coal pit 8 inches deep, 14 inches wide and 20 inches long, is lined with fire brick linings, has convenient grate shaker; is 37 inches high, requires 750 brick to set, body is 24 inches diameter inside. Has a heating capacity of 35,000 cubic feet.



Record Combination Furnace.

FOR WOOD AND COAL.

Style of No. 23.

PRICE :

No. 23 Cast Combination, 3 feet, 2 Radiators,	\$57 75
Hot Water Sides, each, - - - -	5 25

We give with this furnace 2 Bars for holding up top, Poker, Ash Shovel, Scraper, Shaker, Water Pan, Chain Rings and Knobs.

Discount,.....

Record Combination Furnace.

FOR WOOD AND COAL.

Furnished with Hot Water Sides when required.

We put this furnace on the market to meet the demand of those who are in want of a furnace to burn both wood and coal.

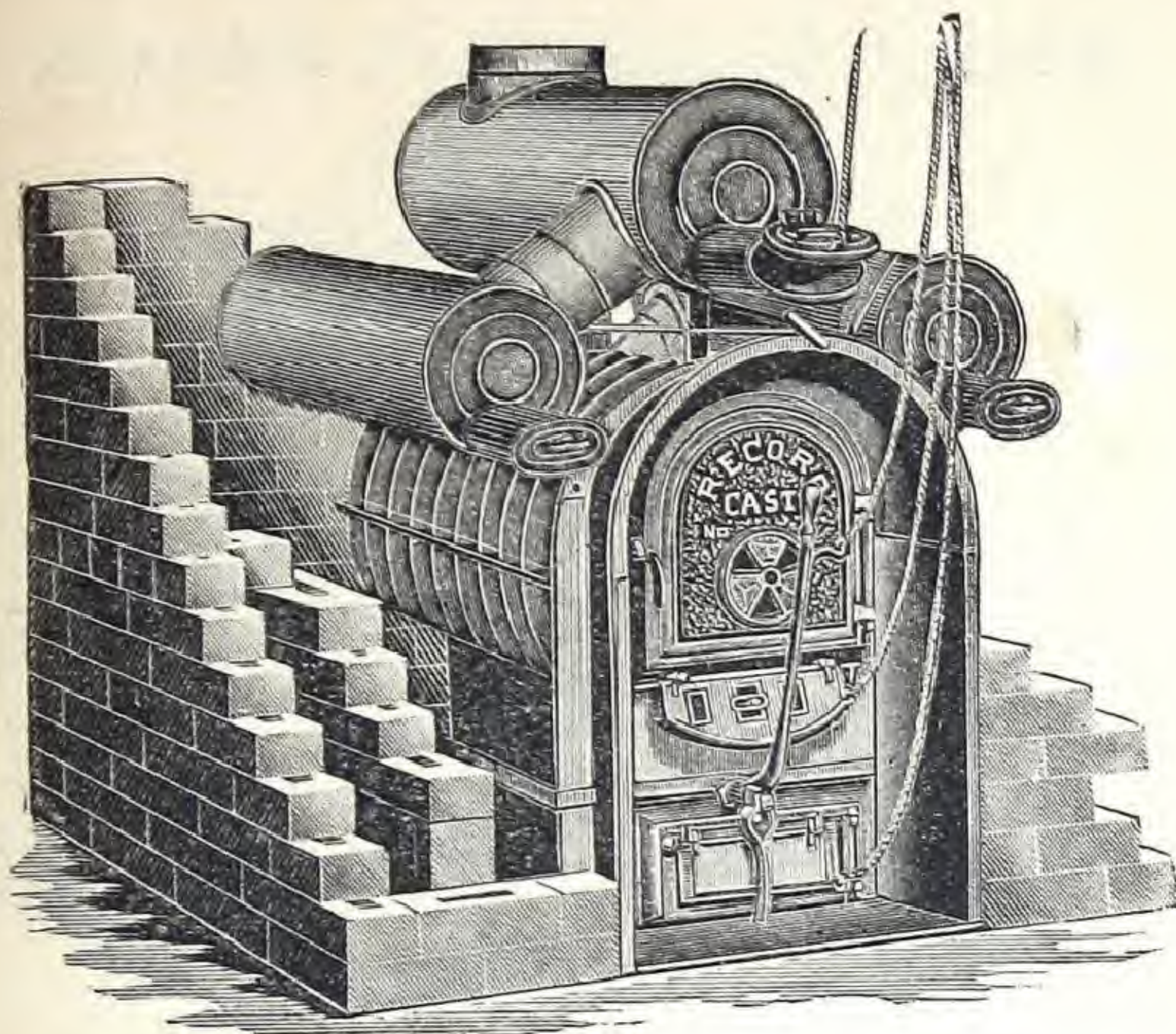
It possesses all the advantages of the Record Cast, and is a splendid heater.

The body is corrugated and made very heavy—similar to the Record Cast.

The radiator is constructed of heavy sheet steel, with cast iron ends and collars, and is a DOUBLE RETURN FLUE DRUM.

Drafts are arranged to be regulated from above, and feed door will admit large, rough wood, while the coal pit is sufficiently large for burning coal.

No. 24. Takes wood 3 feet long, is 40 inches high, requires 750 brick to set it, body is 24 inches diameter inside. Has a heating capacity of 35,000 cubic feet. The coal pit is 8 inches deep, 14 inches wide and 20 inches long, is lined with fire brick linings, has convenient grate shaker and all modern improvements.



Record Combination Furnace.

FOR WOOD AND COAL.

Style of No. 24.

PRICE :

No. 24 Cast Combination, 3 feet, 3 Radiators,	\$60	40
Hot Water Sides, each,	-	5 25

We give with this furnace 2 Bars for holding up top, Poker, Ash Shovel, Scraper, Shaker, Water Pan, Chain Rings and Knobs.

Discount,

THE RECORD EQUATOR

Is a cast iron furnace, with reversible flue radiator, for burning hard or soft coal.

THE DESIGN

Of this furnace has been adopted after many years' study and experience in the furnace business. Large and powerful heating surfaces, a durable shape for each part and convenience in management, are practical matters of great value. These are secured in the Equator Furnace in a simple and approved manner.

THE MATERIAL

—Cast-iron—is melted in the same cupola-furnace with the iron for first-class ranges. The castings are smooth and free from imperfections. The pig-iron used in the Equator Furnace is of a quality suitable for the hardest service.

THE BASE RING

Is a heavy casting designed to sustain the entire weight of the furnace without any central pier or support. This base ring—extra deep and strong—provides a proper foundation for the whole furnace. In setting the Equator on a cemented cellar bottom,

it is only necessary to set the ring in place and build upon it the other parts of the furnace. No other support is required.

THE ASH-PIT

Is much larger and deeper than usual, and the space for ashes is all that can be desired.

THE GRATE

Is of the draw-centre class, which is the simplest, most durable and economical grate in use. No complication, no cog-wheels. The grate is supported on anti-friction wheels, and always moves easily. It may be removed from the furnace without disturbing a single bolt. Ample facilities for removing clinkers. The construction of front prevents the escape of ashes while shaking.

THE SHAKER

Is a valuable improvement. The lever is always in position, ready for use. Shaking the grate is now a pleasure.

THE FIRE-POT

Is cast iron, as nearly straight as possible. This fire-pot never collects clinkers. It never requires re-lining. The size and depth of the fire-pot make it easy to keep a continuous fire with little attention.

THE FEED SECTION,

Or section over the fire-pot, is carried up to an extra height and arched in such a way as to receive all the direct heat of the fire. This dome-shaped piece is very valuable as heating surface, and is so close to the fire-pot that a moderate fire is very effective. The Equator is therefore an economical heater in mild weather.

THE TOP RADIATOR

Is designed to extract from the smoke all the heat possible before the smoke leaves the furnace. For this purpose the radiator is constructed with an inner air-passage, and the air circulates freely through the radiator, as well as around it. The radiator is large enough to form an ample combustion chamber for such gases as are not completely burned at the surface of the fire. The slow progress of the gases through the radiator insures practically perfect combustion before the smoke enters the smoke-pipe.

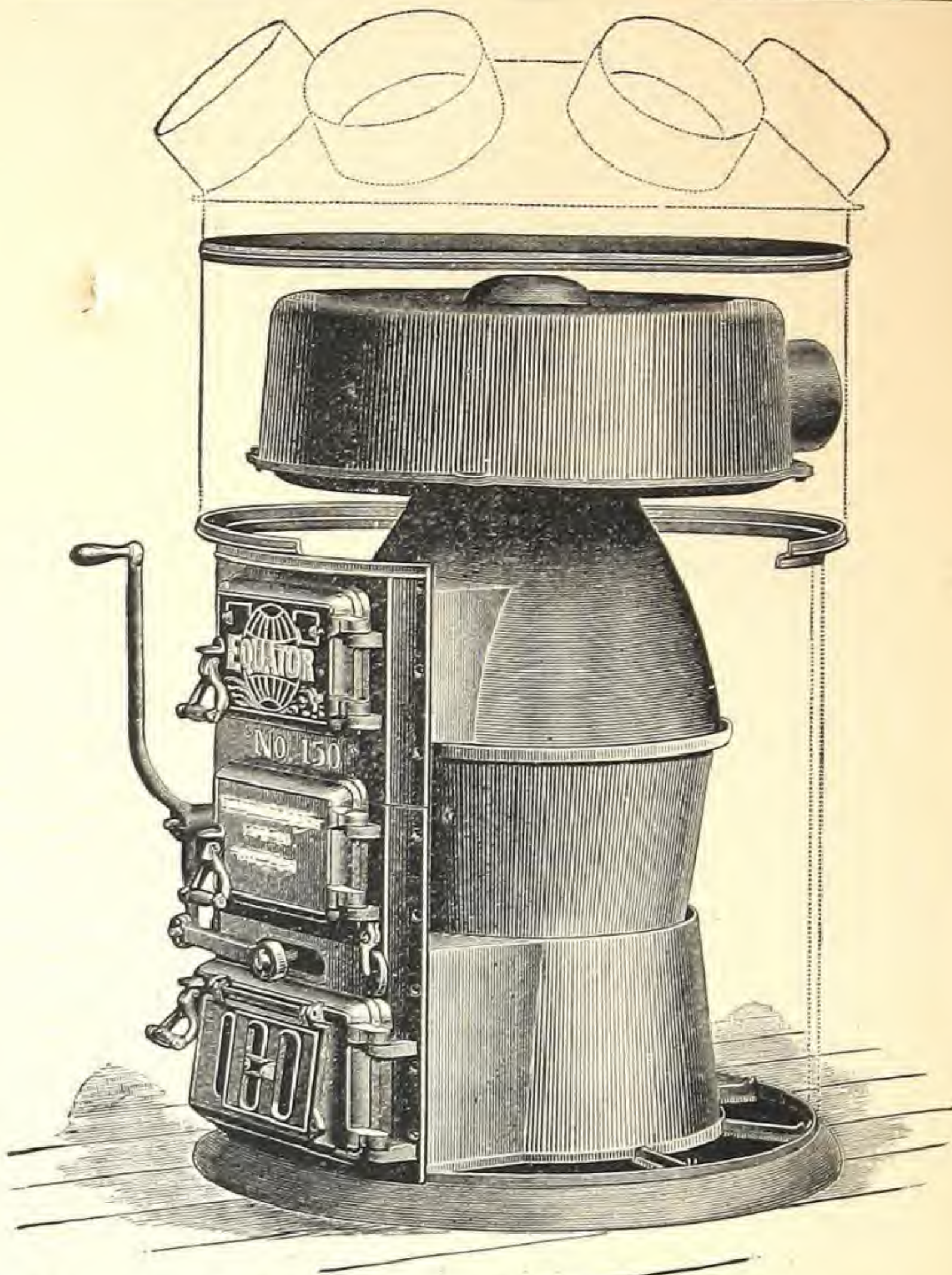
THE MINOR DETAILS

Of the Equator are carried out in a complete and thorough manner. The DOORS are extra large and carefully fitted. The WATER-PAN is attached to the inner side of the water-door. DUST FLUES are provided to carry off the dust when shaking down the ashes. The DRAFT may be operated, by a cord or chain, from the rooms above. The INNER CASING prevents loss of heat in cellar.

To agents and dealers many points of convenience in setting will be interesting. The smoke-pipe may be led off at absolutely any angle. The Equator is especially suited to low cellars, as a glance at the dimensions will show. Cold air may be introduced from below the furnace, by providing a pit, or setting the furnace on brick-work. A cold air frame, for use if desired to admit cold air through the casing, sent with every furnace. The entire furnace has been carefully studied for points of convenience in handling and erecting.

DIMENSIONS.

SIZE	POT	GRATE	RADIATOR		CASING		HEATING CAPACITY
	Diameter	Diameter	Height	Diameter	Height	Diameter	Cubic Feet
130	18 in.	15 in.	51 in	30 in.	59 in.	34 in.	18,000
140	20	17	52	32	60½	36½	28,000
150	22	19	53	33	62	38	40,000
160	24½	21½	54	36½	63	42½	58,000
170	28	25	55	41½	65	48½	85,000
180	32	28	56	44	67	54	125,000

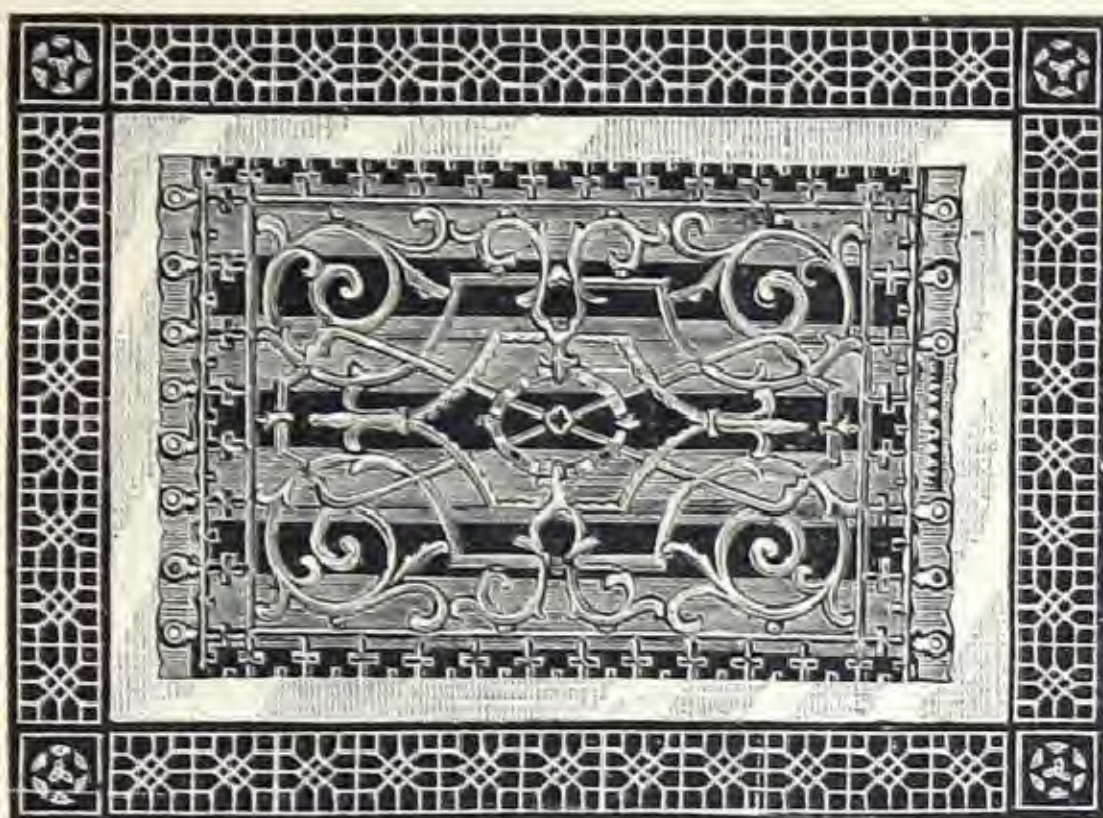


RECORD EQUATOR FURNACE. PORTABLE.

FOR HARD AND SOFT COAL.

	Castings.	Complete with Casing.		Castings.	Complete with Casing.
No. 130	\$55 35	\$64 93	No. 160	\$87 15	\$102 95
No. 140	64 05	75 28	No. 170	126 75	145 20
No. 150	73 95	87 15	No. 180	165 00	191 40

Discount,



FLOOR REGISTERS.

JAPANNED, BLACK OR WHITE, OR NICKEL PLATED.

SQUARE.

Size of Opening.	Registers with Borders.	Registers only without Borders.	Face, Plate only.	Borders only.
6x 8	\$ 3 05	\$ 1 90	\$ 65	\$1 15
8x10	3 90	2 50	85	1 40
8x12	4 30	2 80	1 00	1 50
9x12	4 85	3 30	1 25	1 55
10x12	5 40	3 60	1 50	1 80
10x14	6 15	4 25	1 85	1 90
12x15	8 40	6 00	2 40	2 40
12x19	10 30	7 50	3 20	2 80
14x22	13 70	10 00	3 90	3 70
20x26	23 75	17 00	7 50	6 75

Nickel Plated 25 per cent. advance on above prices.



ROUND REGISTERS.

BLACK OR WHITE JAPANNED.

SIZE AT OPENING.	Register with Border.	Register only without Border.	Borders only.	Face Plate only.
7 inch.	\$ 2 60	\$ 1 50	\$1 10	\$ 60
8 "	3 05	1 85	1 20	65
10 "	4 15	2 75	1 40	1 00
12 "	5 40	3 60	1 80	1 50
14 "	7 65	5 40	2 25	2 00
18 "	13 25	9 25	4 00	3 45
24 "	22 00	15 50	6 50	6 45

Nickel Plated, 25 per cent. advance on above prices.

Smoke Pipe Registers.



Three Sizes, viz , for 7, 8 and 9 inch pipe.

JAPANNED OR NICKEL PLATED.

List Price,	-	-	-	-	-	\$3 00	each
Border for same,	-	-	-	-	-	3 00	"

SIZES AND PRICES OF COLD AIR FACES.

6x 8.....	\$ 0 62
8x10.....	0 85
8x12.....	1 00
9x12.....	1 25
10x12.....	1 50
10x14.....	1 75
12x15.....	2 00
12x17.....	5 25
12x19.....	2 50
14x18.....	2 80
14x22.....	3 10
15x25.....	4 75
20x26.....	6 00

Nickel Plated, 25 per cent. advance on above prices.

Registers and Ventilators.

DIMENSIONS.

SHOWING SPACE OCCUPIED, OPENING REQUIRED AND DATA FROM WHICH MEASUREMENTS OF TIN BOXES MAY BE TAKEN.

Tin Boxes may be a trifle larger than the measurements here given, and according to size, from one to three inches deeper than those given for Registers open.

SLIDE CENTRE — ROUND.

Size as given on List.	Opening to Admit Body of Register.	Extreme Dimensions of Register Face.	Depth of Register.		Opening to Admit Iron Border.
			Closed.	Open.	
7 inch.	7 inch.	$8\frac{3}{4}$ inch.	$1\frac{7}{8}$	3	$10\frac{3}{4}$ inch.
8 "	$8\frac{1}{2}$ "	$9\frac{3}{4}$ "	2	$3\frac{3}{8}$	$12\frac{1}{4}$ "
10 "	10 "	$11\frac{5}{8}$ "	$2\frac{3}{8}$	$3\frac{3}{4}$	$14\frac{1}{2}$ "
12 "	$12\frac{1}{2}$ "	$13\frac{3}{4}$ "	$2\frac{3}{8}$	$3\frac{3}{4}$	$16\frac{3}{4}$ "
14 "	14 "	$15\frac{3}{8}$ "	3	$4\frac{3}{8}$	$19\frac{1}{2}$ "
18 "	18 "	$19\frac{7}{8}$ "	$3\frac{3}{8}$	5	$23\frac{1}{2}$ "
24 "	$24\frac{1}{4}$ "	$26\frac{1}{2}$ "	$4\frac{3}{4}$	$6\frac{1}{2}$	32 "

SQUARE — FOR FLOOR.

6 x 8	6 x 8	$7\frac{7}{8}$ x $9\frac{7}{8}$	2	3	$10\frac{5}{8}$ x $12\frac{5}{8}$
8 x 12	8 x 12	$9\frac{3}{4}$ x $13\frac{5}{8}$	2	3	$12\frac{3}{4}$ x $16\frac{1}{2}$
9 x 12	$9\frac{1}{8}$ x $12\frac{1}{8}$	$10\frac{3}{4}$ x $13\frac{3}{4}$	$2\frac{1}{4}$	$3\frac{3}{8}$	$14\frac{3}{8}$ x $18\frac{1}{2}$
10 x 12	$9\frac{1}{2}$ x $12\frac{1}{8}$	$11\frac{3}{4}$ x $13\frac{3}{4}$	$2\frac{1}{4}$	$3\frac{3}{8}$	$15\frac{5}{8}$ x $18\frac{1}{2}$
10 x 14	$10\frac{1}{8}$ x $14\frac{1}{8}$	$12\frac{1}{4}$ x $16\frac{1}{8}$	$2\frac{3}{8}$	$3\frac{5}{8}$	$15\frac{5}{8}$ x $19\frac{3}{8}$
12 x 15	$12\frac{1}{8}$ x $15\frac{1}{4}$	$13\frac{1}{2}$ x $16\frac{3}{4}$	$2\frac{3}{4}$	$4\frac{1}{4}$	$17\frac{5}{8}$ x $22\frac{5}{8}$
12 x 19	$12\frac{1}{8}$ x $19\frac{1}{4}$	$14\frac{3}{4}$ x 21	$2\frac{3}{4}$	$4\frac{1}{4}$	$17\frac{1}{2}$ x $24\frac{1}{4}$
14 x 22	$14\frac{1}{4}$ x 22	$16\frac{1}{2}$ x $24\frac{1}{8}$	$2\frac{3}{4}$	4	$20\frac{1}{4}$ x $27\frac{3}{4}$
20 x 26	$20\frac{1}{4}$ x $26\frac{1}{4}$	$22\frac{7}{8}$ x $28\frac{7}{8}$	$3\frac{5}{8}$	$5\frac{5}{8}$	$27\frac{1}{4}$ x $33\frac{1}{4}$

Capacity of Pipes and Registers.

ROUND PIPES.

Diameter of Pipes.	Area in Square Inches.	Diameter of Pipe.	Area in Square Inches.	Diameter of Pipe.	Area in Square Inches.
7 inch.	38	12 inch.	113	22 inch.	380
8 "	50	14 "	154	24 "	452
9 "	63	16 "	201	26 "	531
10 "	78	18 "	254	28 "	616
11 "	95	20 "	314	30 "	707

ROUND REGISTERS.

Size of Opening.	Capacity in Square Inches.	Size of Opening.	Capacity in Square Inches.	Size of Opening.	Capacity in Square Inches.
7 inch.	26	12 inch.	75	20 inch.	209
8 "	33	14 "	103	24 "	301
9 "	42	16 "	134	30 "	471
10 "	52	18 "	169	36 "	679

SQUARE REGISTERS.

Size of Opening	Capacity in Square Inches.	Size of Opening.	Capacity in Square Inches.	Size of Opening.	Capacity in Square Inches.
6 x 10	40	10 x 14	93	20 x 20	267
8 x 10	53	10 x 16	107	20 x 24	320
8 x 12	64	12 x 15	120	20 x 26	347
8 x 15	80	12 x 19	152	21 x 29	406
9 x 12	72	14 x 22	205	27 x 27	486
9 x 14	84	15 x 25	250	27 x 38	684
10 x 12	80	16 x 24	256	30 x 30	600

PIPING.

No definite description, nor any reliable rule, can be given as to the size of pipe required to be used in conducting heated air from the furnace to the various apartments to be warmed.

The skill and judgment of the mechanic under whose supervision the work is directed must decide in such particulars. It is often the case that in rooms of the same dimensions, different sizes of pipes and registers are necessary, owing to their distance from the furnace and the position of other pipes; also the purpose for which the rooms are to be used, the amount of heat required, etc., etc. The warm air pipes should have the upper sides all on a level with each other where they are attached to the furnace, whatever may be their size, and in all cases enter as closely under the inner covering of the furnace as possible, always securing as much of an angle of elevation as possible, that the heat may be more effectually secured.

The only power that moves the warm air from the furnace through the pipes is that caused through the tendency of heated air to rise. There should be some elevation, and if there is but little elevation to the pipes for a number of feet, the movement of the air is necessarily very slow. On the other hand, perpendicular pipes draw well and stronger as they have greater height.

Make the pipes with as few turns or elbows as possible from the furnace to the registers, and if necessary to make turns, the elbows should be curved instead of at sharp angles.

In all cases where pipes are carried above the first floor, use a damper in the hot air pipes near the furnace, and keep it closed when the heat is not required in that apartment, as it is not economy to shut off the heat at the register, leaving the pipe constantly filled with hot air, which would radiate its heat in the cellar or walls in which it was located.

Hot air pipes should not be placed in outside walls, if it can be avoided, to prevent loss of heat. Hot air pipes can be placed in an ordinary joist partition, but they must in such cases be lined. Closets also afford a convenient avenue for pipes; also chimney flues. It is not advisable to use the flue itself without a pipe, for the brick would absorb much heat. The connection between the register and the hot air pipes is made by a tin register box, which is of a form to fit the pipe on one side and to receive the register on the other side.

It sometimes occurs, when there is too long a range of smoke pipe and elbows, or when smoke pipe passes through a cold room, or the chimney has not sufficient draft, that the smoke becomes cold too rapidly before escaping out of the chimney, and as a result it condenses and drips. This is due to no fault of the furnace, as the same difficulty frequently occurs in using stoves or any kind of heater. This difficulty is generally overcome, unless the chimney is defective, by covering the smoke pipe with asbestos sheeting, which is not very expensive and can be obtained from your tinsmith. In any case it will have a good effect. By shortening and re-arranging smoke pipe, the difficulty is sometimes overcome.

PRICE LIST OF FURNACE FITTINGS.

Sheet Iron Top for Brick Work, four Registers.....	\$ 4 50
Smoke Pipe Casing.....	2 10
8 inch Tin Hot Air Pipe, per foot	30
10 " " " " " " " "	45
12 " " " " " " " "	62
15 " " " " " " " "	70
8 inch Round Elbows for Hot Air Pipes.....	60
10 " " " " " " " "	75
12 " " " " " " " "	85
15 " " " " " " " "	1 10
8 x 10 Tin Register Boxes.....	85
10 x 12 " " " "	95
10 x 14 " " " "	1 05
12 x 15 " " " "	1 15
14 x 22 " " " "	1 50
8 inch Round Register Boxes.....	85
10 " " " "	95
8 inch Smoke Pipe Thimble for Floor or Partition.....	1 75
8 inch Furnace Smoke Pipe, per foot.....	28
8 " " " " " " Elbows, each.....	52
8 inch Russia Iron Furnace Smoke Pipe, per foot	55
8 " " " " " " Elbows, each.....	1 35
Russia Iron Drums, 40 inches high, 25 inches diam , complete with 8 inch Collars and Cast Iron Legs.....	14 00
Russia Iron Drums, 54 inches high, 25 inches diam., complete with 8 inch Collars and Cast Iron Legs.....	16 25
Common Sheet Iron Drums, 45 inches high, 22 inches diam., complete with 8 inch Collars and Cast Iron Legs.....	6 50



